

Aims and Objectives

The objectives of the Federation are as follows:

- to foster a climate of opinion which takes full account of the environmental issues arising from aircraft and aerodrome use;
- to promote a relationship between the environment and aviation in which the detrimental effects of aviation on quality of life and on the natural and man-made environment are kept to a minimum;
- to encourage wide discussion of the problems involved and to seek practical solutions;
- to consult and co-operate with local, national and international governments, the aviation industry, regulatory authorities, universities, professional institutions, research bodies, and any others for the purpose of reducing noise, disturbance and all forms of pollution by technical and operational means;
- to pursue these objectives with policy-making and legislative bodies - local, national and international - so that laws and policies include measures for effective environmental protection;
- to provide relevant advice and information to assist its members;
- to publicise and promote the viewpoint of the Federation through the media and through representation among bodies responsible for aviation matters as appropriate.

Did you know...



... that commercial aviation is still exempt from duty on kerosene and from VAT, and Air Passenger Duty has fallen by 29% in real terms since 1997.



Aviation could still slip the net on UK climate targets

For a moment we thought we'd actually won. Amidst disaster headlines about banks collapsing and whole countries going bust, on 7th October the BBC reported: "The UK government's official climate change advisers have raised the bar on ambitions to cut emissions. The Committee on Climate Change (CCC) said a cut in greenhouse gas emissions of at least 80% by 2050 should include international aviation and shipping." Environmental campaigners were jubilant, with Friends of the Earth – who were the first to call for a UK Climate Change Bill – declaring it "fantastic news".

But as the smoke cleared a slightly murkier picture emerged. The Committee has advised that emissions from international aviation and shipping, so far excluded from the Climate Change Bill being debated in Parliament, should be accounted for in the UK's overall target for emissions cuts by 2050. But lack of international agreement over how to allocate these emissions as well as possible overlap with measures under the EU's Emissions Trading Scheme, the Committee argues, mean they should *not* be included in the five-yearly budgets that will set out the emissions reduction pathway up to 2050 for all other sectors of the UK economy.

Instead, aviation and shipping emissions should be monitored separately and, if it is found that they are not reducing fast enough (as will almost certainly be the case) then other sectors will have their budgets further tightened to make up the slack. The Committee's advice is that the Bill's current 2050 target of a 60% cut should be increased to 80%, but if aviation emissions continue to grow as predicted, other sectors of the UK economy would need to make emissions cuts on average significantly greater than 80%: a huge challenge.

The Committee's full report will be submitted to Government by the end of the year. In response to these interim recommendations, Ed Milliband, newly-appointed energy and climate change secretary, has said that "the government accepts all of the recommendations of the Committee on Climate Change", including the need for international aviation and shipping to 'play their part' in reducing emissions.

AEF is delighted by the recognition that aviation needs to be part of the UK's long-term climate strategy, and we hope that our discussions with the Climate Change Committee shortly before this news broke helped to shape their decision. But we see little value in aspirational targets without plans for achieving them! Closing your eyes and wishing that a sector with a history of relentless emissions growth and no technological quick-fixes on the table will, by 2050, be operating environmentally sustainable dream machines seems like the start of a fairytale with a very unhappy ending.



Photo: Campaign against Climate Change; www.campaignccc.org

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Getting your message out: new AEF support

For the past few months, AEF has been signed up with VOCUS, a media service package to help our staff and members get campaign messages out to local and national press. The software enables us to create targeted media lists, keep track of journalistic contacts, distribute press releases, and much more. The media database is filled with information on more than 900,000 media contacts, media outlets and analysts as well as publicity opportunities such as forward features (where journalists post which stories they need information for), awards, conferences and tradeshows. It contains in-depth profiles of print, broadcast and online outlets and their journalists and information on top blogs.

To help us ensure that this package generates more coverage and keeps public awareness of our campaigns rising, we'd really like our members to make the most of it. If you would like us to create a media list of local journalists, or if you come across a new contact you would like us to add to our list, please contact Laura (laura@aeef.org.uk) with your press release and the types of journalists you would like to see your information. This could be, for example, political and environmental freelancers in the Loughborough area, or all newspapers with weekly coverage in the south-east. We are signed up to the service for limited period, so make sure you benefit from it over the next few months.

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Time to tighten up on European regulations

This autumn sees a number of consultations on UK and European policy.

Two pieces of European law are this year undergoing their (delayed) five-year review. The first, Directive 2002/30 on **noise restrictions at EU airports**, was put in place to implement the 'balanced approach' to aircraft noise management; this had been recommended by the International Civil Aviation Organisation, and was defined by four policy 'pillars': reduction at source, land use planning, operational procedures, and operational restrictions. The European Commission's review of this legislation found, however, that its application had been limited, and that the number of people affected by noise, including during the night, had in fact increased since the Directive came into force! AEF's response to the consultation (available on our website) highlighted the need for mandatory – rather than discretionary – thresholds for triggering noise mitigation.

The second, Directive 2002/49 – the **Environmental Noise Directive** – requires member states to draw up 'noise maps' for major roads, railways, airports and agglomerations, and to produce action plans for dealing with excessive noise. Again, however, no limit values for noise are specified and actions by states are discretionary. Consultation on this legislation is expected to open shortly at http://ec.europa.eu/environment/consultations_en.htm

Meanwhile, Defra has been consulting on England's implementation of the Directive (with a parallel consultation taking place in Wales) through the **Environmental Noise Regulations 2006**. Specifically, the department is seeking views on the current guidance for airport operators on how to produce noise action plans. Operators' requirements under Directive 2002/49 include considering the 'opportunities' for the protection of quiet areas and setting out a long term strategy for noise management. AEF is preparing a response that will reflect members' concerns about whether such strategies take into account future development plans, for example for new housing, that could be sited within 55 db contours; more in the next newsletter. Consultation documents are on the Defra website and responses must be submitted by 28th November.

While the Environmental Noise Directive applies only to airports with more than 50,000 movements per year, **noise and other environmental problems from smaller aerodromes** are among the concerns that the European Aviation Safety Agency (EASA) is keen to take up. AEF recently met with representatives of EASA, which is seeking support for a proposed expansion of its remit to include the regulation of environmental impacts, especially in areas where there are current gaps in European policy. Both EASA itself and the UK's Department for Transport (which seems reluctant to cede any of its powers!) are currently consulting on this proposal.

And finally, with Europe's key policy solution for aviation emissions – the **emissions trading scheme** – due to come into force in 2012, the European Commission has a consultation on its proposed monitoring, reporting and verification procedures. There looks to be little to quibble over, though whether the scheme itself will prove effective is a different question altogether.

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The search for a green jet fuel continues

Increasing pressure on the aviation industry to do more to control and reduce its carbon emissions has pushed alternative fuels firmly up the agenda. These fuels have their own system, development specifications, and pros and cons. They must be compatible with current distribution networks and aircraft fuel systems; offer similar performance characteristics to petroleum-derived fuel; be safe at altitude, with acceptable freezing point performance and no corrosion on-board fuel systems or aero engine components; and, from the industry's viewpoint, cost the same, or less, than current jet fuel.

Synthetic alternative fuels fall into two categories. The first is coal-to-liquid (CTL) and natural gas-to-liquid (GTL) kerosene-type products that are produced using the Fischer-Tropsch (FT) process (German inventors of the synthetic fuel process developed during the Second World War). Biofuels are the other route, using bio mass material from sustainable sources, ideally without putting competitive pressures on food production or agricultural resources.

Testing of FT fuels by the United States Air Force (USAF) is now quite well-advanced, and civilian FT process jet fuel from coal has for years been produced in by Sasol, the state oil company in South Africa. The Sasol plant is a legacy of the apartheid regime. In the 1970s and 1980s, international sanctions – including restrictions on oil supplies – were imposed, forcing the state to turn to South Africa's plentiful coal reserves for synthetic petroleum. But there is a problem with CTL FT fuel: the production process is hugely carbon-intensive. Speaking in December 2007, the USAF assistant secretary, James Anderson, said jet fuel from coal produced 1.8 times more carbon dioxide in production and consumption than jet fuel from oil. He added, however, that most of that additional amount could be 'captured'.

“Biofuel from future-sustainable sources seems to remain in the realms of science fiction”

Carbon capture and storage (CCS) removes CO₂ in the FT process by a chemical reaction or scrubbing. The gas is then collected or dissolved in solution and pumped away to containment areas or put to other industrial uses, for instance as a feedstuff for co-located algae biomass feedstock production plants, currently being promoted as an environmental win-win situation. There is a great deal of talk about CCS, but at present only small-scale test or development programmes exist. Since natural gas-based CTL aviation fuels have no climate change benefits unless CCS is deployed, the conversion of fossil fuel feedstock, whether coal or gas, to synthetic aviation fuel is currently environmentally unsustainable.

Biofuel is the other alternative aviation fuel route under development and commercial airlines including Virgin Atlantic, Continental Airlines and Air New Zealand have headline-grabbing trials in place. Fuel from sustainable feed stocks is being considered in various percentage mixes with either conventional or synthetic aviation fuel. A 100% formula would be highly unlikely as most biofuels lack the energy density of kerosene; miles-per-gallon performance is poorer with consequent range penalties for aircraft missions. Virgin Atlantic flew a Boeing 747 in February 2008 with one engine powered by an 80/20 mix of kerosene, and an unsustainable first generation biofuel made from palm oil and extract of babassu nut, plus a bio-ethanol antifreeze component. Air New Zealand has said it will fly a 747 in late 2008 or early 2009 with one engine powered by a kerosene/biofuel mix, which could be algae-derived.

It is a step in the right direction that all forms of aviation are looking at alternative fuels, given the need for CO₂ emissions from aviation to be controlled, stabilized and ideally reduced by the middle years of this century. AEF believes, however, that no CTL/GTL derivatives should be manufactured without CCS being in place from day one. Unfortunately, this seems unlikely in a reasonable timeframe (given the climate change greenhouse gas reduction policy imperatives worldwide), or at an acceptable financial cost.

Biofuel from future-sustainable sources seems to remain in the realms of science fiction, with talk of algae production facilities on top of sewage works, claimed yields of fantastic proportions, and flexible conversion / production / distribution networks situated wherever demand occurs. For a reality check, the Commercial Aviation Alternative Fuels Initiative consortium (CAAFI), a US-based project, is a good source of reference. Time is not on our side if we are to avoid the worst impacts of climate change. Our target for the commercial aviation industry would be 75% of aircraft fuel to come from completely sustainable biofuel production with refinery co-located CCS within 15 years. Any takers?



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<http://psdblog.worldbank.org/psdblog/environment/>

[Adapted from an article published in *Aerospace Testing International*; full story available on AEF's website]

News from around the country

Remember the promise of joined-up government? On 8th October, Geoff Hoon and Hazel Blears announced their decision to allow an additional 10 million passengers per year to use Stansted Airport. The application had been 'called in' after Uttlesford District Council turned it down partly on the grounds that the increase in CO2 emissions that it would cause was incompatible with climate change targets.

But in overruling this decision the Government stated that since the Climate Bill, that will put UK targets into law, has yet to be enacted, it should be afforded little weight, given that it "might be subject to change". One such change was confirmed eight days later when the new Department for Energy and Climate Change announced that the Bill will *increase* the stringency of the UK's current target by committing us to at least 80% reductions to our 1990 levels of carbon dioxide by 2050 and that this target will include the UK's share of international aviation and shipping.

Campaign group Stop Stansted Expansion has said in a statement that the announcement on the airport "exposes the Government's climate change rhetoric as entirely hollow".

An announcement on the proposed third runway at Heathrow Airport is expected by the end of the year. The Conservatives recently joined the Liberal Democrats in announcing their opposition to the plan and proposed developing high speed rail alternatives.

Meanwhile, noise continues to cause problems for many local residents near smaller aerodromes. An AEF member reports that Sywell Aerodrome has been granted permission for "a hard runway in a small grass field."

"Following what many would regard as a perverse ruling by the Secretary of State to overrule the rejection of the application by the Local Authority, work has commenced on the project. Although the remainder of the site is still fully operational, traffic has recently reduced considerably despite the introduction of an aerobatic team who exercise over and around the surrounding villages. It remains to be seen whether the project will be economically viable under the substantially changed economic and environmental conditions since it was first put up over nine years ago."

A fuller report will be included in the January newsletter.

There has, however, been good news for campaigners in Coventry: the airport's long-running expansion plans have this month been turned down by a High Court judge, upholding an earlier Government decision.

The airport had applied for a new terminal that could have brought a doubling of passenger numbers. The proposed development, the Government concluded, "would add significantly to the loss of amenity local residents already experience, particularly at unsocial hours, from the noise of Thomsonfly passenger aircraft", and any measures to reduce noise would "be offset by the increase in Passenger Air Transport Movements".

Coun Bertie Mackay said "We've had big business, lawyers and three local authorities lined up against us, so I do feel a certain vindication." Thomsonfly has now announced that it is pulling out of the airport.



How do you like your newsletters?

Thank you for all your compliments about our last publication. If you would like to receive any edition of *Flying Green* in electronic form or in large print, please contact cait@aef.org.uk. We are happy to email this to members as soon as it is published, to allow you to make additional copies, but as non-members have to wait three months we ask that you don't publish it on the web or circulate it by email (except to your own members, in the case of associations). We are currently reviewing whether to increase the number of hard copies we send to group members. More information at our AGM.

And finally... the latest news on the Planning Bill should be on our website by the time you read this!

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